To: Hanson, Kristen[KHanson@ldftribe.com]
Cc: lwawronowicz@ldftribe.com[lwawronowicz@ldftribe.com]; Dee.allen@ldftribe.com[Dee.allen@ldftribe.com]; Greenwater, Anthony[greenwater.anthony@epa.gov]; Kamke, Sherry[Kamke.Sherry@epa.gov]; Manville, Jennifer[manville.jennifer@epa.gov]
From: Egan, Robert
Sent: Thur 7/6/2017 12:24:16 PM
Subject: RE: Proposed well locations- Task Order for Monitoring Well Nests - 3,5,6

Kristen,

Thank you for the information. I will put together a draft task order for this work.

One clarification- on the soil sampling, do you want 3 samples for each well or 3 samples for each nested well location? I thought that we would first perform soil boring, logging, and sampling to bedrock at each well nest location, then choose samples for the lab and also depths for screened intervals, and then have the wells drilled and installed at that location without further logging and sampling. This would limit the number of samples sent to the lab and save some money.

Please let me know if this is acceptable.

Thank you.

Bob Egan

Corrective Action Manager

Underground Storage Tanks Section

RCRA Branch

EPA Region 5

(312) 886-6212

(312) 692-2911 (fax)

From: Hanson, Kristen [mailto:KHanson@ldftribe.com]
Sent: Friday, June 30, 2017 2:42 PM
To: Egan, Robert <egan.robert@epa.gov>; Dee.allen@ldftribe.com; Greenwater, Anthony <greenwater.anthony@epa.gov>; Kamke, Sherry <Kamke.Sherry@epa.gov>; Manville, Jennifer <manville.jennifer@epa.gov>
Cc: lwawronowicz@ldftribe.com
Subject: FW: Proposed well locations- Task Order for Monitoring Well Nests - 3,5,6

Good Afternoon Bob,

I understand that you will be moving forward on a Task Order for the well nest locations 3, 5, and 6 on the attached EPA-Tribe agreed well network documents.

The materials include a statement on drilling methods:

Preferred Drilling Methods:

Logged Soil Stratigraphy remains a significant data gap for this site. A drilling method that provides logged cores is preferred for both appropriate site characterization and well screen placement. This is particularly important because of the vertically complex nature of the hydrostratigraphy and resulting plume. Methods that do not provide logs or use logged cores for informing well screen depths pose a number of risks. These include:

1) Drilling and screening through confining or semi confining layers. This likely has already occurred. Direct Sensing Tools and other observations suggest finely inter-bedded layers of silts sand and clay, peat, peat/organics/silt, and a potential lower clay unit occurring sporadically across the site at varying depths.

2) Fate and transport mechanisms appear to occur within more transmissive preferential flow paths at varying depths and thicknesses. Screening wells without logged stratigraphy will likely miss worst-case plume conditions at one or more of the proposed well nest locations.

For other detailed monitoring well guidance, please See Attached 2013 EPA Guidance Entitled Design and Installation of Monitoring Wells.

We also discussed the collection of soil samples, soil screening, and logging during our call. I understand you are interested in Tribal input on soil sampling.

I would suggest the following:

Logged soils would be screened in the field with a PID and soil samples collected from field identified impacted soils (estimate up to 3 per well installation). Soils would then be analyzed for all site COCs.

Kristen Hanson

Environmental Response Program Coordinator

Lac du Flambeau Tribal Natural Resource Department

Office: 715-588-4290

Cell : 715-614-4644

From: Egan, Robert [mailto:egan.robert@epa.gov]
Sent: Wednesday, April 26, 2017 3:16 PM
To: Christopher A Saari; Dave Larsen
Cc: Hanson, Kristen; Allen, Dee; Kamke, Sherry; Manville, Jennifer; Greenwater, Anthony
Subject: Proposed well locations

Gentlemen:

Attached, please find a map with proposed well locations, text which provides justification for well placement, and an EPA guidance document on well installation.

Please let me know if you have any questions about the material.

I look forward to our discussion tomorrow.

Bob Egan

Corrective Action Manager

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